REMARKS

This amendment is in response to the Final Office Action dated July 8, 2004. Claims 1-35, 58-62 and 69-102 are pending in the application.

In the Final Office Action, the Examiner rejected claims 1-13, 17-20, 22, 24, 25, 27, 69-75, 77, 79, 80, 86-94, 96-98 and 100-102 under 35 U.S.C. § 102(b) as being anticipated by "New Intelligent Electronic Devices Change the Structure of Power Distribution Systems" ("Sezi"). Further, claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sezi in view of U.S. Patent No. 6,459,175 ("Potega"). Claims 15, 26, 34 and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sezi in view of U.S. Patent No. 5,680,324 ("Schweitzer"). Claims 16 and 99 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sezi in view of "The Utility Initiative for Interoperability Between Intelligent Electronic Devices in the Substation – goals and status" ("Burger"). Claims 21, 28, 76 and 81 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sezi in view of U.S. Patent No. 6,380,949 ("Thomas"). Claims 29-33 and 95 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sezi in view of U.S. Patent No. 6,587,873 ("Nobakht").

Each of the rejections from the Final Office Action of February 2, 2004 is discussed below in connection with the various claims. No new matter has been added. Reconsideration of the application is respectfully requested in light of the amended claims and the following remarks.

I.   REJECTIONS UNDER 35 U.S.C. § 102(b)

A.   Independent Claims 1 and 69

Independent Claims 1 and 69 were rejected under 35 U.S.C. § 102(b) as being anticipated by Sezi. Applicants respectfully traverse this rejection due to the fact that Sezi fails to disclose all the elements of these claims.

Sezi discloses an IED comprising a microprocessor and an A/D converter (see Sezi section F. Self Monitoring and External Circuit Monitoring and Fig. 12, p. 950). Fig. 12 of Sezi depicts a block diagram of the IED-analog path and includes primary CTs which would

be mounted external to the IED in addition to some elements of the analog path (including an A/D converter, sample and hold circuit and low pass filter) which may be internal to an IED. While Fig. 12 of Sezi shows an A/D converter, it fails to show that a microprocessor comprises the A/D converter. Since a CT cannot be embodied in a microprocessor, Fig. 12 of Sezi cannot be depicting a microprocessor. Therefore the A/D converter of Sezi must be a separate component from the microprocessor. Accordingly, Sezi fails to disclose at least "a processor comprising an analog to digital converter" as indicated by the Examiner. Having the A/D converter comprised within the processor provides at least one of the following benefits: decreased IED cost, decreased IED power consumption, the ability to use the internal A/D to monitor for power failure without the necessity to power and external A/D, decreased IED circuitry complexity, decreased firmware complexity due to the A/D conversion results being built into the register set of the processor, etc.

Sezi also discloses an Intelligent Electronic Device with exchangeable communication modules (see Sezi p. 945, col. 1, lines 24-27 and col. 2, line 1). It is clear from the disclosure of Sezi that these modules are designed to be mounted *internal* to the IED due to the fact that these modules are printed circuit boards that are inserted into the IED in a "draw-out" fashion (Sezi Fig. 2 and p. 945, col. 2, line 7). Sezi (under section G. Tools for Settings and Configuration on pp. 950) indicates that the functionality of the IED may be configured by an external device, but not that the external device comprises any power management functionality. Therefore, Sezi fails to disclose at least "a first interface coupled with said processor and said communications interface, said first interface operative to receive a first external function module, said first external function module comprising second power management functionality, wherein said first interface is further operative to facilitate implementation of said second power management functionality" as indicated by the Examiner. Having the external function module mountable external to the IED provides at least one of the following benefits: ease of attachment/detachment of the module, protection of delicate internal components of both the IED and the module, as well as ease of upgradeability of an IED already installed, etc.

For at least the reasons given above, reconsideration of the allowability of claims 1 and 69 is respectfully requested.

B.   Dependent Claims 2-13, 17-20, 22, 24, 25, 27, 70-75, 77, 79, 80, 86-94, 96-98 and 100-102

Dependent Claims 2-13, 17-20, 22, 24, 25, 27, 70-75, 77, 79, 80, 86-94, 96-98 and 100-102 were rejected under 35 U.S.C. § 102(b) as being anticipated by Sezi. Applicants respectfully traverse this rejection due to the fact that Sezi fails to disclose all the elements of these claims. Dependent Claims 2-13, 17-20, 22, 24, 25, 27, 70-75, 77, 79, 80, 86-94, 96-98 and 100-102 depend from and therefore contain all the features of independent Claims 1 and 69 respectively.

Therefore, for the reasons given above regarding the Claims from which they depend Claims 2-13, 17-20, 22, 24, 25, 27, 70-75, 77, 79, 80, 86-94, 96-98 and 100-102 should be allowable.

For at least the reasons given above, reconsideration of the allowability of claims 2-13, 17-20, 22, 24, 25, 27, 70-75, 77, 79, 80, 86-94, 96-98 and 100-102 is respectfully requested.

III.   REJECTIONS UNDER 35 U.S.C. § 103(a)

A.   Dependent Claim 14

Dependent Claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sezi in view of Potega. Applicants respectfully traverse this rejection due to the fact that neither Sezi, Potega nor the combination of the two disclose or suggest all the features of this claim. Dependent Claim 14 depends from Claim 1 and therefore for the reasons given above, Sezi fails to disclose all the features of this claim. In addition, neither Potega nor the combination of Sezi and Potega disclose or suggest those features that Sezi fails to disclose.

Accordingly, reconsideration of the allowability of Claim 14 is respectfully requested.

B.   Dependent Claim 15

Dependent Claim 15 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sezi in view of Schweitzer. Applicants respectfully traverse this rejection due to the fact that neither Sezi, Schweitzer nor the combination of the two disclose or suggest all the features of this claim. Dependent Claim 15 depends from Claim 1 and therefore for the reasons given above, Sezi fails to disclose all the features of this claim. In addition, neither

Schweitzer nor the combination of Sezi and Schweitzer disclose or suggest those features that Sezi fails to disclose.

Accordingly, reconsideration of the allowability of Claim 15 is respectfully requested.

C. Dependent Claim 26

Dependent Claim 26 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sezi in view of Schweitzer. Applicants respectfully traverse this rejection due to the fact that neither Sezi, Schweitzer nor the combination of the two disclose or suggest all the features of this claim. Dependent Claim 26 depends from Claim 1 and therefore for the reasons given above, Sezi fails to disclose all the features of this claim. In addition, neither Schweitzer nor the combination of Sezi and Schweitzer disclose or suggest those features that Sezi fails to disclose.

Schweitzer discloses port task routines and the reception and transmission of data over 17 ports using an ISR (see Schweitzer col. 6, line 54 to col. 7, line 48). As far as can be understood by the Applicant, the Examiner is equating the port task routines of Schweitzer to the external function modules of the present application. It will be apparent to one of ordinary skill in the art that the port task routines of Schweitzer are software/firmware entities. As can be seen throughout the present application (for instance Fig. 8) the external functional modules of the present application are physical devices containing electronic circuitry, which may contain software/firmware, but are not themselves software/firmware entities. Therefore, for at least this reason Schweitzer fails to disclose "wherein said first interface is further operative to receive a plurality of said first external function modules, each of said plurality of first external function modules comprising a second interface, wherein a first of said plurality of first external function modules is coupled with said first interface and subsequent of said plurality of first external function modules are sequentially coupled with each other via said second interface and wherein said first interface communicates with each of said plurality of first external function modules as though each was connected with said first interface" as claimed.

Therefore, neither Sezi, Schweitzer nor the combination of the two disclose the additional features of this claim.

Accordingly, reconsideration of the allowability of Claim 26 is respectfully requested.

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C.   Dependent Claims 34 and 35

Dependent Claims 34 and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sezi in view of Schweitzer. Applicants respectfully traverse this rejection due to the fact that neither Sezi, Schweitzer nor the combination of the two disclose or suggest all the features of this claim. Dependent Claims 34 and 35 depend from Claim 29 which depends from Claim 1 and therefore for the reasons given above regarding Claim 1, Sezi fails to disclose all the features of these claims. Neither Schweitzer nor the combination of Sezi and Schweitzer disclose or suggest those features that Sezi fails to disclose in regard to Claim 1. In addition, the Examiner has provided no reasoning as to how Sezi, *Schweitzer* or the combination of the two render Claim 29 unpatentable and Claims 34 and 35 depend from Claim 29.

Therefore, for at least the reason that neither Sezi, Schweitzer nor the combination of the two disclose the features of Claims 1 and 29.

Accordingly, reconsideration of the allowability of claims 34 and 35 is respectfully requested.

D.   Dependent Claim 16

Dependent Claim 16 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sezi in view of Burger. Applicants respectfully traverse this rejection due to the fact that neither Sezi, Burger nor the combination of the two disclose or suggest all the features of this claim. Dependent Claim 16 depends from Claim 15 which depends from Claim 1 and therefore for the reasons given above regarding Claim 1, Sezi fails to disclose all the features of these claims. Neither Burger nor the combination of Sezi and Burger disclose or suggest those features that Sezi fails to disclose in regard to Claim 1. In addition, the Examiner has provided no reasoning as to how Sezi, *Burger* or the combination of the two render Claim 15 unpatentable and Claim 16 depends from Claim 15.

Therefore, for at least the reason that neither Sezi, Burger nor the combination of the two disclose the features of Claims 1.

Accordingly, reconsideration of the allowability of claim 16 is respectfully requested.

E.   Dependent Claims 21 and 76

Dependent Claims 21 and 76 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sezi in view of Thomas. Applicants respectfully traverse this rejection due to the fact that neither Sezi, Thomas nor the combination of the two disclose or suggest all the features of this claim. Dependent Claim 21 depends from Claim 18. Dependent Claim 76 depends from Claim 73. Therefore for the reasons given above, Sezi fails to disclose all the features of these claims. In addition, neither Thomas et al. nor the combination of Sezi and Thomas et al. disclose or suggest those features that Sezi fails to disclose.

Accordingly, reconsideration of the allowability of Claims 21 and 76 is respectfully requested.

F.   Dependent Claims 28 and 81

Dependent Claims 28 and 81 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sezi in view of Thomas. Applicants respectfully traverse this rejection due to the fact that neither Sezi, Thomas nor the combination of the two disclose or suggest all the features of these claims. Dependent Claim 28 depends from Claim 27. Dependent Claim 81 depends from Claim 80. Therefore for the reasons given above, Sezi fails to disclose all the features of these claims. In addition, neither Thomas nor the combination of Sezi and Thomas disclose or suggest those features that Sezi fails to disclose.

Thomas discloses windows applications and communication between these applications (see Thomas col. 5, lines 21-41). As far as can be understood by the Applicant, the Examiner is equating the windows applications of Thomas to the external function modules of the present application. Clearly the windows applications of Thomas are software. As can be seen throughout the present application (for instance Fig. 8) the external functional modules of the present application are physical devices containing electronic circuitry, which may contain software/firmware, but are not themselves software/firmware entities. Therefore, for at least this reason Thomas fails to disclose "a first connection of said second external function module to said first external function module and a second connection of said first external function module to said interface uniquely identifies each of

said first and second external function modules for subsequent individual communications by said interface based on said first and second connections" as claimed.

Therefore, neither Sezi, Thomas nor the combination of the two disclose the additional features of these claims.

Accordingly, reconsideration of the allowability of Claims 28 and 81 is respectfully requested.

G.   Dependent Claims 29 and 82

Dependent Claims 28 and 81 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sezi in view of Nobakht. Applicants respectfully traverse this rejection due to the fact that neither Sezi, Nobakht nor the combination of the two disclose or suggest all the features of these claims. Dependent Claim 29 depends from Claim 1. Dependent Claim 82 depends from Claim 69. Therefore for the reasons given above, Sezi fails to disclose all the features of these claims. In addition, neither Nobakht nor the combination of Sezi and Nobakht disclose or suggest those features that Sezi fails to disclose.

Nobakht discloses a system server for channel-based internet network. Part of this system includes a server that transmits channel table data, authorization codes and update available codes to a terminal (see Nobakht col. 11, lines 30-48). All of this information is data and does not include the operating or program code for the terminal. Therefore, for at least this reason Nobakht fails to disclose "wherein said base module further comprises a first non-volatile memory operative to store first program code for execution by said processor, said processor being operative to access a second non-volatile memory in said first external function module via said first interface, said second non-volatile memory comprising second program code, said processor further operative to replace said first program code in said first non-volatile memory with said second program code" or "storing first program code in a first non-volatile memory in said base module; accessing a second non-volatile memory in said first external function module, said second non-volatile memory comprising second program code; and replacing said first program code in said first non-volatile memory with said second program code" as claimed.

Therefore, neither Sezi, Thomas nor the combination of the two disclose the additional features of these claims.

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In addition, there is no basis in the art for combining the Sezi and Nobakht references. The Examiner indicates that the references are combinable "because replacing the code would have allowed the skilled artisan to prevent errors in the code and keep the most updated version of the code." However, neither Sezi nor Nobakht indicate any desirability of preventing errors in program code or keeping the most updated version of program code within an IED.

Accordingly, reconsideration of the allowability of Claims 29 and 82 is respectfully requested.

E. Dependent Claims 30-33 and 83-85

Dependent Claims 30-33 and 83-85 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sezi in view of Thomas. Applicants respectfully traverse this rejection due to the fact that neither Sezi, Thomas et al. nor the combination of the two disclose or suggest all the features of this claim. These claims depend from either claim 29 or 82 as applicable and therefore should be patentable for the reasons given above.

Accordingly, reconsideration of the allowability of Claims 30-33 and 83-85 is respectfully requested.

II. UNEXAMINED CLAIMS

Claims 58-62, withdrawn, should be allowable, given the allowability of claims 69-85, as none of the cited art discloses or suggests all elements of any of these claims. Notification of the allowability of Claims 58-62 is respectfully requested.
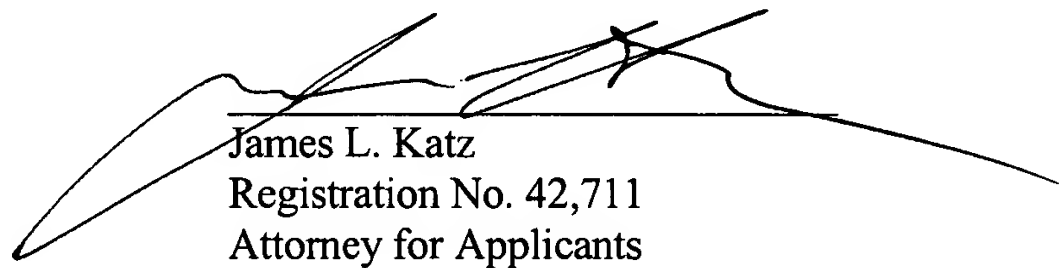
CONCLUSION

Each of the rejections in the Final Office Action dated July 8, 2004 has been addressed and no new matter has been added. Applicant submits that all of the pending claims are in condition for allowance and notice to this effect is respectfully requested. The Examiner is invited to call the undersigned if it would expedite the prosecution of this application.

Respectfully submitted,

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